

# Maintaining Scotland's roads

An audit update on councils' progress



 ACCOUNTS COMMISSION

Prepared by Audit Scotland  
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# The Accounts Commission

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# Introduction

1. Safe, well-maintained transport links are vital to Scotland's economic prosperity and well-being. Roads play a significant part in everyday life. Well-maintained roads are important for individuals and businesses, and can contribute to fewer road accidents, reduced congestion, shorter journey times and lower vehicle maintenance costs.<sup>1</sup>
2. In February 2011, we published *Maintaining Scotland's roads: A follow-up report*. This was a joint report with the Auditor General. The report examined progress on implementing the recommendations of our previous report on roads maintenance, published in November 2004.<sup>2</sup>
3. In relation to council-maintained, or local, roads, our 2011 report found the following:
  - The condition of local roads had worsened, with 66 per cent of classified roads being in acceptable condition in 2010 compared to 70 per cent in 2005.
  - Councils spent £492 million on local roads maintenance in 2009/10. This represented a reduction of £76 million (13 per cent) on 2004/05 levels after taking roads construction inflation into account.
  - The cost of fixing roads defects was increasing. Councils estimated it would cost £1.54 billion to fix all carriageway defects in 2010, £554 million more, allowing for inflation, than in 2004.
  - Councils had made limited progress since the 2004 report in improving how they managed roads maintenance. For example, fewer than half of councils were reporting their maintenance backlog to elected members and a third had still to develop roads asset management plans.
4. The report's findings, together with public sector spending constraints, suggested that radical change was required to halt the decline in roads condition and improve value for money from roads maintenance activity. Our recommendations included the following:
  - The Scottish Government should consider a national review of how the road network is managed and maintained, with a view to developing new ways of providing services and increasing the potential for shared services.
  - Transport Scotland and councils should work together to consider all opportunities for achieving more with the resources currently available. This included exploring new ways of working, the pooling and flexible use of resources, such as staff and equipment, and partnerships between councils and with the private sector.

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<sup>1</sup> *Economic, Environmental and Social Impact of Changes in Maintenance Spend on Roads in Scotland*, Transport Research Laboratory for Transport Scotland, July 2012.

<sup>2</sup> *Maintaining Scotland's roads*, Accounts Commission and the Auditor General for Scotland, November 2004.

- Councils should:
  - have a roads asset management plan in place no later than the end of 2011
  - ensure they can demonstrate they are making the best use of resources currently available, through benchmarking and improved management and reporting
  - adopt the performance indicators being developed by the Society of Chief Officers of Transport in Scotland (SCOTS) as a first step in allowing the relative performance of councils' roads maintenance activities to be measured consistently.
- 5. During 2012, we asked the local auditors for each council to examine how it had responded to the recommendations in our 2011 report. This audit update is based primarily on the results of the auditors' reviews. We also carried out some additional work including interviewing representatives from SCOTS and considering aspects of the national roads maintenance review.<sup>3</sup> We expect councils to have made further progress since auditors carried out their reviews, but we consider that this update provides a useful indication of overall progress since our 2011 report.

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<sup>3</sup> See [Appendix 1](#) for details of the national roads maintenance review.

# Conclusions and recommendations

6. The percentage of local roads in acceptable condition has increased marginally from 66.1 to 66.7 per cent over the last two years, despite a reduction in roads maintenance spending from £492 million in 2009/10 to around £400 million in 2010/11 (a 21 per cent reduction in real terms).
7. The national roads maintenance review has resulted in a detailed action plan to improve roads maintenance activity and we acknowledge that considerable activity has taken place. However, there is scope to accelerate the implementation of our 2011 recommendations to improve the management of roads maintenance. For example:
  - Despite our recommendation that all councils should have roads asset management plans in place by the end of 2011, auditors reported that only half of councils had done this. While SCOTS has reported that all councils now have roads asset management plans in place, councils need to ensure that they are of sufficient quality and that they are monitoring them effectively.
  - Although councils are making more use of performance information and a common set of performance indicators has been agreed, they need to do further work to improve the quality and consistency of the data to enable meaningful benchmarking to take place.
8. It is imperative that the national roads maintenance review is translated into more efficient roads maintenance and, ultimately, in improved roads condition. It has been two years since the review began and we consider that now would be an appropriate time to review progress and achievements to date. In particular, we recommend that councils, the Convention of Scottish Local Authorities (COSLA) and SCOTS should:
  - continue to work with Transport Scotland to develop methodologies for evaluating the impact of the national roads maintenance review to date, with a view to further prioritising actions that are likely to have most impact on improving roads condition
  - continue to work with partners on the Roads Maintenance Strategic Action Group to produce a strategy for developing the best service and structural models to deliver roads maintenance.<sup>4</sup>
9. We also strongly recommend that individual councils continue to improve how they manage roads maintenance and value for money. Specifically they should:
  - formally adopt and implement roads asset management plans as a matter of urgency, filling any gaps that auditors have identified in plans

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<sup>4</sup> See [Appendix 2](#) for details of the Roads Maintenance Strategic Action Group.

- develop clear arrangements for monitoring the effectiveness of these plans, including setting out clear milestones and the officers responsible for delivering them
  - submit accurate and complete data to the SCOTS/Association for Public Sector Excellence (APSE) and the Society of Local Authority Chief Executives and Senior Managers (SOLACE)/Improvement Service performance indicators projects to allow consistent benchmarking to take place and unit costs to be established
  - continue to monitor the impact of changing levels of maintenance expenditure on the condition of their roads
  - respond actively to emerging guidance and other support intended to promote innovation and knowledge sharing across councils, and the consideration of shared services options.
10. Overall, while we recognise that councils are facing budget constraints, there is a need to increase the pace of progress in improving roads condition. We will therefore continue to monitor progress and report to the public in due course.

# Progress since our 2011 report

## The condition of local roads has marginally improved since 2010 despite a fall in roads maintenance spending

11. Spending on roads maintenance includes all work on roads other than major new-build or reconstruction work. It includes structural maintenance, safety, weather and winter maintenance, lighting, emergency patching and routine repairs. The amount of money spent on roads maintenance can therefore be influenced by factors such as:
  - the severity of the weather
  - the choice of road surface treatments, for example, surface dressing rather than extensive resurfacing.
12. As a result, annual variation in spend is not necessarily reflected in significant changes to the condition of the road network. However, there are potentially significant consequences if roads maintenance activity is reduced by too much. An example is research by the Transport Research Laboratory (TRL). Based on different expenditure scenarios, this has found that every £1 reduction in local roads maintenance spend could result in a cost of between £1.67 and £1.76 to the wider Scottish economy. The added costs reflect factors such as increased vehicle fuel consumption, more wear and tear and more skid-related accidents.<sup>5</sup>
13. SCOTS carried out a survey of council spending on roads maintenance as part of the national roads maintenance review. SCOTS reported gaps and inconsistencies in the data provided by councils, which meant it was impossible to identify accurately the total spend on roads maintenance. However, it estimated that councils spent no more than £400 million on roads maintenance in 2010/11.<sup>6</sup> Compared to the £492 million roads maintenance expenditure that we reported for 2009/10, this represents a 21 per cent reduction when adjusted for general inflation and a 23 per cent reduction when adjusted for roads construction inflation. In general terms, SCOTS attribute the reduction to a combination of higher than normal spending on winter maintenance activities in 2009/10 due to the severe weather conditions, and to budget cuts in 2010/11.
14. Despite the apparent reduction in roads maintenance expenditure, the latest roads condition data shows that the condition of Scotland's local roads has marginally improved in the last two

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<sup>5</sup> *Economic, Environmental and Social Impact of Changes in Maintenance Spend on Roads in Scotland*, Transport Research Laboratory for Transport Scotland, July 2012.

<sup>6</sup> *Option 30 report. National Roads Maintenance Review Phase 3*, Option 30 Task Group, June 2012. The total maintenance spend figure is an estimate based on survey returns from 23 councils.



years.<sup>7</sup> We reported that 66.1 per cent of local classified roads were in acceptable condition in 2010. This figure has improved slightly to 66.7 per cent in 2012 (Exhibit 1). Overall, however, the percentage of local classified roads in acceptable condition in 2012 is still lower than it was in 2005 (69.6 per cent).<sup>8</sup>

## Exhibit 1

### How the condition of local classified roads has changed since our 2011 report



Note: The roads condition survey data is derived from the results of the two most recent surveys, for example the 2012 results in exhibit 1 are based on data for 2011 and 2012. Rather than simply averaging the results from each year, the data collected over the two years is analysed as a single set.

Source: *Scottish Roads Maintenance Condition Survey 2012*, reported by SCOTS, March 2013

15. While SCOTS considers the latest roads condition results to be a significant achievement, council payments to compensate drivers for pothole damage have risen, from around £340,000 in 2007/08 to £1.2 million in 2011/12. Currently councils do not capture public perception of roads condition on a consistent basis however this is an area being taken forward as part of the national roads maintenance review. A number of roads user surveys, although limited in scope, indicate that the public has concerns about the condition of Scotland's roads. For example:

- Forty-five per cent of local roads users in Scotland consider roads condition to be poor, very poor or terrible, the worst rate in the UK.<sup>9</sup>

<sup>7</sup> Roads condition data is collected annually through the Scottish Roads Maintenance Condition Survey (SRMCS) which is organised by SCOTS. The SRMCS uses specialised vehicles travelling at normal speed to assess the surface condition of the local roads network. Vehicles collect information on road gradient and shape; evenness of the ride; cracking; texture and deterioration.

<sup>8</sup> SRMCS data has been collected since 2002; however sophisticated analysis is only available from 2004/05.

<sup>9</sup> AA survey of 23,000 roads users, conducted in January 2013.

- Scotland is perceived to have more potholes per mile than any other region in the UK, and more worn or faded roads markings.<sup>10</sup>
- Drivers in Scotland are more likely to report pothole damage, with 44 per cent saying their cars had been damaged at some point over the last two years.<sup>11</sup>

## Councils need to do more work to develop roads asset management plans

16. Councils need clear roads asset management plans for managing their roads to ensure they meet service standards and achieve good value for the money they spend on maintaining roads. A good quality roads asset management plan:
  - describes the assets forming the roads network and their condition
  - assesses the future demand likely to be placed on the network
  - clearly describes the level of service the council will provide to maintain the network
  - provides financial information, including a long-term prediction of the cost of managing and operating the roads network.
17. We recommended that councils should have roads asset management plans in place by December 2011. From the information provided by auditors last year, about half of councils had a published or approved roads asset management plan, or an equivalent document, by the target date. Most other councils had draft plans prepared, with most of these due to be finalised during 2012 or 2013. SCOTS report that all councils now have a roads asset management plan in place.
18. There is scope to improve the quality of roads asset management plans and the monitoring of progress against them. Half of the auditors reported gaps in council information, including incomplete or unreliable asset inventory data, incomplete asset lifecycle plans and a lack of detailed long-term funding requirements.
19. Many councils have developed improvement plans to support their overall roads asset management activities. These plans can play a useful role in improving how councils manage roads maintenance activities, so it is important that clear systems are in place to help councils monitor how they are delivering these plans. Only a few auditors reported that adequate arrangements were in place for monitoring how councils were implementing improvement plans.<sup>12</sup> In other councils, it is unclear how progress against asset management plans is being monitored.
20. SCOTS has taken forward a project over the last four years to provide training and guidance to help councils develop their asset management plans. It is important for councils to continue to take advantage of this project as it moves forward. It is also important that councils have

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<sup>10</sup> Streetwatch survey, conducted by AA Streetwatch volunteers in October 2012.

<sup>11</sup> AA survey of 23,000 roads users, conducted in January 2013.

<sup>12</sup> Angus, Clackmannanshire, City of Edinburgh, East Renfrewshire, Glasgow City, Moray, Renfrewshire and Stirling councils.

clearly defined arrangements in place for monitoring their roads asset management plans, so that those responsible for actions can be held to account for delivering them.

## Councils are making more use of performance information but need to do more work to allow meaningful benchmarking to take place

21. In our 2011 report, we noted that SCOTS were developing a suite of performance indicators to help councils manage their roads maintenance activities. These cover areas such as customer service, network condition and availability, and finance. We recommended that councils adopt these indicators to help create more consistency and to allow benchmarking to take place.
22. Last year auditors reported that about half of councils were using all, or most, of the SCOTS performance indicators, often supported by individual council indicators. Most of the remaining councils appeared to have been using the indicators developed by APSE to assess performance.
23. SCOTS and APSE have now agreed a common set of performance indicators covering all aspects of roads maintenance including carriageways, footways, lighting, structures and customer service ([Exhibit 2](#)). In December 2012, all councils submitted data to the joint SCOTS/APSE project.

### Exhibit 2

#### A sample of SCOTS/APSE performance indicators for carriageways



##### Safety

- Percentage of Category 1 defects made safe within response times
- Percentage of safety inspections completed on time
- Percentage of network salted regularly



##### Condition/Asset preservation

- Percentage of carriageway length to be considered for maintenance treatment
- Percentage of carriageway length – surface dressed
- Percentage of carriageway length – fully reconstructed



##### Financial

- Total maintenance expenditure by carriageway length
- Cost per kilometre of planned/reactive/routine maintenance
- Cost per kilometre of winter maintenance treatment

Source: SCOTS/APSE, 2012

24. In March 2013, SOLACE and the Improvement Service launched a new benchmarking framework covering seven main council service areas. Four out of the 55 high-level performance indicators contained in the framework are roads related.<sup>13</sup> The development of the SCOTS/APSE and the SOLACE/Improvement Service performance indicators is a welcome and positive step.
25. To allow meaningful benchmarking to take place, it is vital that councils generate consistent performance information. SCOTS has acknowledged that some councils have still to develop systems to allow them to produce accurate data returns. More work also needs to be done to improve the quality of financial data that will allow councils to calculate unit costs. To help councils make the necessary data improvements, SCOTS has established benchmarking groups to help remove inconsistencies in the way councils produce and report data, and also to promote best practice.<sup>14</sup>

## The national roads maintenance review is progressing but it will take time to result in significant new ways of working

26. The Scottish Government and councils established a steering group in March 2011 to carry out the national roads maintenance review ([Appendix 1](#)). The group published the final report on its work in July 2012, setting out 30 actions, referred to as options. It estimated that these would deliver up to ten per cent efficiency savings through innovative practice, collaborative working and sharing services between roads authorities.
27. Before finalising its report, the steering group identified the need for a more detailed assessment of the 'optimum arrangements for the management and maintenance of roads in Scotland' (known as Option 30). A separate Option 30 report, published in June 2012, concluded that current arrangements could be improved on and that all councils should explore sharing services in the short term.<sup>15</sup> The report also considered that the benefits from setting up a new roads authority, or authorities, was likely to take longer to achieve. It stated that if the benefits of shared services were not realised as anticipated in the short term, work on exploring structural change should be accelerated.
28. Progress against the 30 options is monitored by a newly formed Roads Maintenance Stakeholder Group ([Appendix 2](#)). Many of the options that the review identified reflect recommendations and other findings contained in our 2011 report. At the end of 2012, the Group reported that 20 of the options had either been, or were on track to be, implemented. These included:
  - implementing asset management planning across all roads authorities
  - adopting the SCOTS suite of performance indicators
  - developing and applying consistent unit cost benchmarking methodology

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<sup>13</sup> ENV4a – cost of maintenance per kilometre of roads and ENV4b, ENV4c and ENV4d – percentage of class A, B and C roads that should be considered for maintenance.

<sup>14</sup> The benchmarking groups are: Rural; Islands; Semi-Urban; Urban and Cities.

<sup>15</sup> *Option 30 report. National Roads Maintenance Review Phase 3, Option 30 Task Group, June 2012.*

- delivering and adopting SCOTS recommended minimum levels of service for roads maintenance
  - establishing a Scottish Road Research Board to promote innovation and knowledge sharing across roads authorities.
29. The other ten options were either behind schedule or had not yet been implemented at the end of 2012. These included:
- introducing a lean management culture across the roads maintenance sector<sup>16</sup>
  - developing an overarching communication strategy that raises awareness of the value of roads maintenance
  - investigating ways to capture public perceptions in a cost effective way.
30. Auditors have also reported that individual councils have taken action to improve value for money from roads maintenance. Some of the initiatives considered by councils include:
- undertaking some form of service reconfiguration, such as changing organisational structures or shift patterns
  - establishing joint tendering arrangements with other councils, mainly for winter weather forecasting or minor maintenance work
  - undertaking either cost or performance benchmarking with other councils or the private sector.
31. The national roads maintenance review has also led to other initiatives being developed. In particular, SCOTS and Transport Scotland have recently formed a Shared Capacity and Shared Services Improvement Board to provide guidance and support to councils who wish to explore shared services options.<sup>17</sup> While it will take time for significant changes to ways of working to be made, it is important that councils take advantage of this support, and that offered by other sources such as the Scottish Road Research Board, in considering how best to maximise value for money from their roads maintenance activities.

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<sup>16</sup> 'Lean management' refers to a recognised management technique which focuses on maximising process efficiency and customer value; that is, it seeks to eliminate wasteful and unnecessary processes.

<sup>17</sup> See [Appendix 2](#) for details of the Shared Capacity and Shared Services Improvement Board.

# Appendix 1

## National Roads Maintenance Review

1. A key recommendation in our 2011 report was that the Scottish Government should consider a national review of arrangements for managing and maintaining roads, with a view to stimulating new ways of providing services. Ministers accepted this recommendation and the Scottish Government and councils established a steering group to direct the review. The steering group consisted of the following local and national stakeholders:
  - The Convention of Scottish Local Authorities (COSLA)
  - The Society of Local Authority Chief Executives and Senior Managers (SOLACE)
  - The Society of Chief Officers of Transport in Scotland (SCOTS)
  - The Scottish Road Works Commissioner (SRWC)
  - Transport Scotland.
2. The group was asked to consider how the roads maintenance sector can deliver efficiently managed roads within the budgets available, and identifying opportunities for innovation, collaborative working and sharing services.
3. The review took place in three phases between March 2011 and June 2012:
  - Phase 1 focused on gathering evidence and identified seven broad themes as a focus for change.<sup>18</sup>
  - Phase 2 built on these themes and developed 30 specific options to improve services.
  - Phase 3 sought to take action on the 30 options identified in Phase 2.
4. The steering group produced a report on each phase of the review and published the final report in July 2012.<sup>19</sup>

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<sup>18</sup> Effective asset management; Prioritisation; Benchmarking and monitoring; Delivery models; Incentivising innovation; Enabling faster change; and Communication.

<sup>19</sup> *Final report, National Roads Maintenance Review*, Steering Group, July 2012.

# Appendix 2

## Remit of roads maintenance groups

1. Following publication of *Final report, National Roads Maintenance Review* in July 2012, Transport Scotland, SCOTS and others agreed to establish a number of groups to take forward its findings.

### Roads Maintenance Strategic Action Group

2. The remit of the group is to:
  - oversee partnership working on roads maintenance
  - develop collaborative approaches on strategic issues
  - deliver the roads maintenance Strategic Framework for Change
  - oversee the Roads Maintenance Stakeholder Group and the Shared Capacity and Shared Services Improvement Board.
3. The group meets twice a year and is chaired by the Minister for Transport and Veterans, and COSLA. Membership also includes senior representatives from the following local and national bodies:
  - The Society of Local Authority Chief Executives and Senior Managers (SOLACE)
  - The Society of Chief Officers of Transport in Scotland (SCOTS)
  - The Scottish Road Works Commissioner (SRWC)
  - Transport Scotland
  - Improvement Service.

### Roads Maintenance Stakeholder Group

4. The group's remit is to underpin the work of the Strategic Action Group. Specifically this includes:
  - ensuring that the 30 options from the national roads maintenance review are progressed
  - evaluating roads authorities' performance in implementing the actions, providing support where required and promoting good practice
  - advising the Strategic Action Group on important current and emerging aspects of road maintenance.
5. The group meets four times a year and is chaired by SCOTS. Membership also includes representatives from:
  - COSLA
  - Transport Scotland
  - Association for Public Service Excellence (APSE)

- SRWC
- roads user groups
- utility companies
- supply chain groups
- Audit Scotland (as an observer only).

### **Shared Capacity and Shared Services Improvement Board**

6. The board's remit is to oversee the central resource (a project support office), which has been created to help develop shared services and skills in roads maintenance.
7. The board is chaired by the Improvement Service and is largely made up of representatives from SCOTS and Transport Scotland (three members each). The board also has representatives from:
  - SOLACE
  - Scottish Futures Trust
  - private partners who have substantial experience of shared arrangements.



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